

Chairman Jore; Members of the Education Committee

My name: Walt Hill

I was a candidate for HD 92 and ^{primarily because} in the process was deeply concerned with Montana's future economic health. In spite of present budget surpluses, driven largely by energy needs, Montana's economy has always been very cyclic, primarily because we are so dependent upon natural resources and agriculture.

I am a research professor in Biochemistry, and have been involved in research for the past 38 years. I have received numerous grants from the National Institutes of Health and the National Science Foundation. I have served as a program officer for the National Science Foundation, and have served on numerous review boards for that National Science Foundation and the National Institutes of Health. I have also served for over a decade as the Director of the Montana Center of Excellence in Biotechnology. In addition, I have, in conjunction with Dr. Gary Strobel of MSU, directed the National Science Foundation EPSCoR Program in the State for approximately ten years. I only give these data to provide background for what I would like to say.

So why am I here? I have nothing personally to gain by this. I presently have a \$420,000 grant from NSF and was just awarded a \$275,000 grant from the NIH. So this isn't about me. It's about Montana – a vision of what we can become.

One of the keys to stabilizing Montana's economy and providing higher-paying, stable jobs for our trained youth is to attract and develop high-tech businesses. The major attractant for such companies are vibrant university researchers. Such researchers not only attract high-tech concerns, but also develop spin-off companies of their own. In Montana we can list many businesses that have been started in this manner, some of which are developing quite well.

However, we are still lacking ^{the} ~~some~~ critical mass and visibility to attract major companies and develop our potential fully. To a large degree this is because we are often unable to attract and retain truly world-class scientists. As I have tried to understand why this is so, I have found several critical factors lacking. Most of these fall into the category of infrastructure. We lack state-of-the-art buildings in which to do research. We lack core facilities to provide the ancillary products and expertise needed to keep vibrant research going. We lack technically trained personnel at the universities to run the specialized equipment. We critically lack necessary funds to "start up" hired faculty and researchers.

Universities have changed from brick and stone forts housing classrooms and chalkboards into campuses that are modern, research-driven campuses probing the unknowns. Perhaps we don't need all of the glitter and façade provided by others to attract faculty, since we have our truly exotic environment. But we do need infrastructure to allow vibrant research to take place.

Is this a fiscally responsible approach? The answer already is a vibrant YES. In 2004, it is documented that for every \$1 the State put into higher education, over \$3.40 was returned to the State in taxable revenue. This return would be many times greater once the research infrastructure was in place and the critical mass met and exceeded. Increased numbers of "home grown" businesses and a pronounced increase in the number of outside high-tech businesses attracted would result.

So we definitely need a study to identify how much "seeding" of the research is essential to accomplish this goal. I am satisfied that no other approach will produce a permanent solution to stabilizing Montana's economy.

If I had my way, I would encourage you to immediately invest \$20 million/year for every year of the next decade into University Research Infrastructure. This must be set aside specifically for that so that it is not frittered away on athletics or parking structures or whatever. You can't lose! Already every \$1 invested brings back \$3.40. Does this help the economy? YES! That is why Bozeman and Missoula are two of the highest housing cost cities in the State. Pressures from this research engine are making things happen. Now we need salaries to catch up. And those come from high-tech companies.

There is also an educational component. Such an investment benefits all aspects of the campus by attracting more and more bright minds to train our youth.

We definitely need to study this carefully, but above all, we need to invest!